



RENEWALS



RELEASE • RESTORE • REDEVELOP

INSIDE THIS ISSUE • INSIDE THIS ISSUE • INSIDE THIS ISSUE • INSIDE THIS ISSUE

Got Vapors?.....1
Permanganate Injections Into Groundwater - Questions & Answers.....3
No Action Required Vs. No Further Action-What's The Difference?.....4
Talk To Us...We're Listening.....5
Marathon Rubber Bounces Back - Wausau Neighborhood Revitalized.....6

Register For July Milwaukee Brownfields Workshop!.....7
Growing Smart with Brownfields - Wisconsin's Comprehensive Planning Legislation.....8
2003 Call For Entries - National Award For Smart Growth Achievement.....9

Assistance Available For On-site Power Generation At Redevelopment Projects...9
Hazardous Waste Remediation Guidance, Web Page Developed.....10
New, Revised Publications Available.....11

FEATURE

GOT VAPORS?

Chemical vapors seeping into indoor air is not a new concept. In fact, "chemical vapor intrusion" as it is technically known, has been addressed by government officials, the construction industry, developers and other parties for many years. However, recent studies have shown that chemical vapor intrusion can be as much, if not more, of a threat to public health than contaminated groundwater or other contamination pathways (i.e. soil).

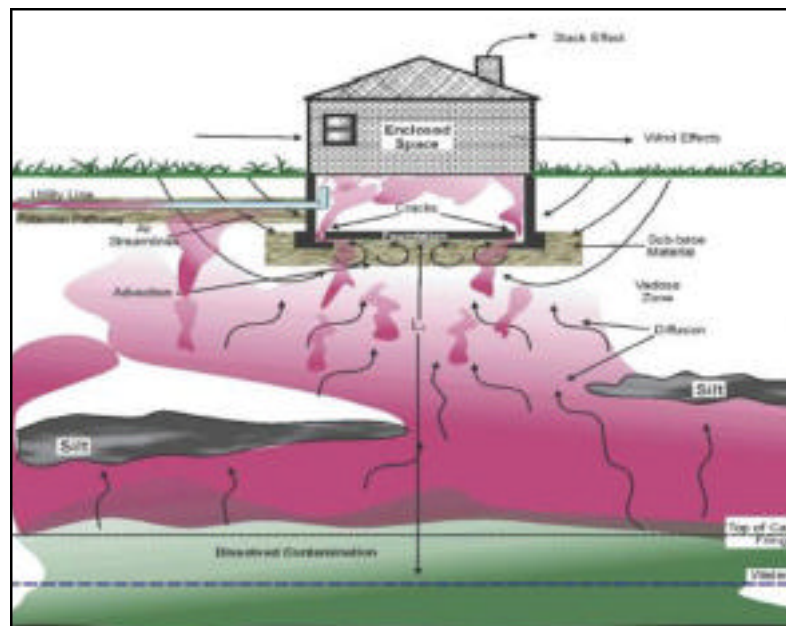


Figure 1. Vapor Intrusion Example (2002 Draft U.S. Environmental Protection Agency Guidance).

GOT VAPORS? (CON'T.)

That is why it is becoming more common for Department of Natural Resources (DNR) and Department of Commerce staff to raise concerns about chemical vapor intrusion to indoor air. As a result of this concern and the need for more investigation, some case closures are being deferred until the vapor intrusion pathway has been adequately addressed.

The roles of DNR and Commerce staff have not changed – they continue to be responsible for the same reviews and approvals as well as all decisions about case closures. However, you may find that staff with the Department of Health and Family Services (DHFS) are now consulted more frequently on vapor intrusion-related issues because of their expertise related to indoor air quality issues, radon mitigation and risk assessment communication.

A Complex Pathway

The vapor intrusion pathway is complex to evaluate because, not only is it dependent on fate and transport properties in multiple media, but it is also dependent on site- and building-specific factors. For instance, indoor air vapors may come from attached garages as well as cleaning agents used in homes (please see Figure 1).

The variability over time and seasons adds another layer of complexity. Also, in some cases (e.g. TCE and xylene) the dissolved contaminant levels below which vapor intrusion may be screened out as a potential pathway of concern are less than the enforcement standards for groundwater protection.

Some simple field procedures can be implemented to begin to assess the presence of vapors at contaminated sites. For example, environmental consultants can sample the air (i.e. headspace) in groundwater monitoring wells before initiating any other field work at a well (as called for in U.S. EPA's standard operating procedure on water-level measurements, which is available at www.ertresponse.com/sops/2043.pdf).

In addition to being a technically complex pathway to investigate, there are important considerations specific to the needs of state grant and loan programs, and to the use of tools available for brownfield redevelopment, that must be included. State health staff work closely with DNR and Commerce officials on these site-specific and policy issues related to vapor intrusion.

Sources of Information

In order to increase the number of cases where the vapor intrusion pathway is properly evaluated, DHFS has issued a guidance document on the topic, directed towards environmental consultants and contractors. This guidance is not prescriptive, but provides a general framework for approaching the evaluation of pathway. Entitled **Chemical Vapor Intrusion and Residential Indoor Air: Guidance for Environmental Consultants and Contractors**, this document is available on the DHFS web site at www.dhfs.state.wi.us/eh/air.

EPA has also released draft guidance on the topic specific to chlorinated solvents. Their guidance provides a more detailed and prescriptive approach. Although the EPA document is quite long (178 pages), it can be a valuable decision-making tool. A worksheet is provided in the guidance that is particularly helpful in identifying sites that should be investigated for a vapor intrusion problem. The EPA document, **OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)**, is available at the following web site: www.epa.gov/correctiveaction/eis/vapro.htm.

Other guidance tools that are particularly useful for addressing the vapor intrusion pathway include the **Guidance for Documenting the Investigation of Utility Corridors and Understanding Chlorinated Hydrocarbon Behavior in Groundwater Investigation, Assessment and Limitations of Monitored Natural Attenuation**, available on the RR Program web site at www.dnr.state.wi.us/org/aw/rr/archives/pub_index.html.

PERMANGANATE INJECTIONS INTO GROUNDWATER - QUESTIONS & ANSWERS

Recently, there have been requests to RR project managers and other DNR staff to inject permanganate – MnO_4 in either the potassium or sodium form – into groundwater to treat contaminants in-situ. Some issues have come up which staff are now addressing with our customers.

What Is MnO_4 Used For?

Permanganate is primarily used to oxidize & destroy chlorinated ethenes. While it does not oxidize petroleum compounds, MnO_4 does provide oxygen to the subsurface and will support biological activity that can degrade petroleum. Please note, though, that this is a very costly method for adding oxygen.

What Kinds of Trace Metals Are Present With MnO_4 ?

Permanganate is created from manganese ores, which contain a variety of trace metals.

Trace metals that may be present include: antimony, arsenic, chromium, mercury, beryllium, cadmium, lead, and thallium. The metal of most concern is chromium (Cr), which will be in the Cr (VI) form, the most oxidized and mobile form.

In general, concentrations of the trace metals injected with the MnO_4 should not exceed Enforcement Standards (ES). However, there are various grades of MnO_4 containing different concentrations of trace metals. The manufacturer should be able to provide an analysis of the MnO_4 proposed for injection at a remediation site, including the amounts of trace metals to be expected.

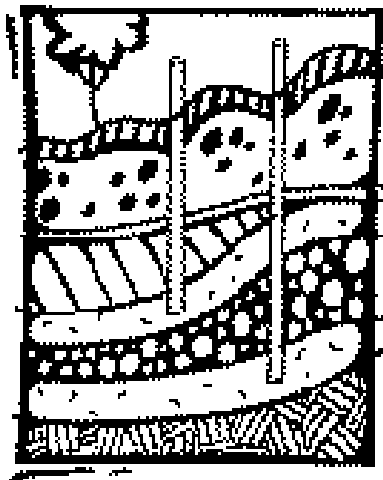
Permanganate (and other strong oxidizers) can oxidize and mobilize chromium that is native to soils and bedrock. Other metals may also be mobilized through oxidation. The background concentration of the trace metals, the availability of the trace metals to the oxidant, the soil type and other factors will determine the final concentrations in groundwater. It is possible to exceed ES levels for chromium (and perhaps other metals) through mobilization of native trace metals.

What Needs To Occur Before An MnO_4 Injection?

We recommend that the following issues be addressed when requesting approval of an MnO_4 injection:

- provide the chemical analysis of the MnO_4 proposed for injection;
- provide a mass balance of the MnO_4 versus the natural oxidant demand and contaminant demand (i.e., to avoid excess MnO_4);
- provide rationale for the proposed concentrations of MnO_4 in groundwater necessary to oxidize the contaminant;
- provide rationale for the expected persistence of MnO_4 in the groundwater (i.e., how long it will be effective);
- propose a monitoring system that can determine the extent of the area affected by the MnO_4 injection;
- propose groundwater analysis for:
 - * total Cr before treatment, and then periodically during treatment and after treatment until Cr has declined to background levels;
 - * other trace metals that could exceed PALs; this includes an assessment of metals contained in the MnO_4 as well as native trace metals; and
 - * MnO_4 concentrations;
- propose sentinel wells as part of the monitoring program; use these wells to determine that MnO_4 doesn't extend beyond the area intended to be treated; and
- propose monitoring MnO_4 and trace metals until those compounds have returned to background levels.

Please note, all injection requests require approval under NR 812, Wis. Adm. Code, before injection. Depending on levels, an exemption from NR 140, Wis. Adm. Code, may also be necessary. For questions or more information on permanganate injection for remediation, please contact Terry Evanson at 608-266-0941, or theresa.evanson@dnr.state.wi.us. For more information on temporary exemptions to NR 140 groundwater standards, please contact Bill Phelps at 608-267-7619, or william.phelps@dnr.state.wi.us.



NO ACTION REQUIRED VS. NO FURTHER ACTION – WHAT'S THE DIFFERENCE?

Program staff have discovered some confusion over the two phrases "No action required" and "No further action". The following information was also provided in the RR's electronic listserv newsletter on November 8, 2002.

No Action Required (NAR)

"No action required" (NAR) refers to a recently created module in our Bureau for Remediation and Redevelopment Tracking System, known as BRRTS. This module tracks information where DNR staff have determined that no environmental action is required in response to information that we have received (e.g. a tank closure assessment report where no site investigation is required).

This module allows us to more easily keep track of these reports and to share this information with the public. The information can be handy for property transactions, future development, future discharge issues at the property, and for investigations at adjacent properties.

The RR Program does not send a response letter for sites in the NAR module unless we have received a request (and fee) for a general liability clarification letter. Also, please remember that this module shows our response to specific reports that we have received. It does not guarantee that there is no other contamination on a property. Entries in the NAR module are always assigned a BRRTS tracking number that starts with 09.

No Further Action (NFA)

The "No further action" (NFA) category, provided for under s. NR 708.09, Wis. Adm. Code, is entirely different from NAR. The phrase means that a significant discharge to the environment has occurred and has been adequately cleaned up within 45 days after the initial notification of the discharge. These releases are handled as spills and are tracked in the spills module of BRRTS, with a tracking number that starts with 04. Again, no response letter is sent unless the spiller or a responsible party has requested a letter and paid the \$250 fee for a "no further action" letter.



Tracking Our Work

For readers who use **BRRTS on the Web** extensively, remember that we have eight different modules in BRRTS that track specific types of incidents. You can locate these modules in **BRRTS on the Web** by using the drop down menu under "activity type". Sites in each module start with a distinct BRRTS identification number, shown below. If you don't select a specific module, **BRRTS on the Web** will show you the activities in all of the modules.

- 02 – **Environmental Repair Program (ERP)**: case closure under ch. NR 726, Wis. Adm. Code.
- 03 – **Leaking Underground Storage Tank (LUST)**: case closure under chs. NR 726 or NR 746, Wis. Adm. Code.
- 04 – **No Further Action (Spill)**: no further action under s. NR 708.09, Wis. Adm. Code.
- 06 – **Voluntary Party Liability Exemption (VPLE)**: Certificate of Completion under s. 292.15, Wis. Stats.
- 07 – **General Property Assistance**: includes negotiated agreements, off-site exemption letters, lease letters, tax cancellation agreements, general liability clarification letters and lender Phase 1 and 2 assessments.
- 09 – **No Action Required (NAR)**: no site investigation or cleanup required.

You can find **BRRTS on the Web** on the RR web site at www.dnr.state.wi.us/org/aw/rr/index.htm. If you have questions about BRRTS, please contact Dale Ziege at 608-267-7533, or dale.ziege@dnr.state.wi.us.

TALK TO US...WE'RE LISTENING

The Remediation and Redevelopment (RR) Program takes pride in our relationships with the private sector and with other units of government. Our program was created in 1995 based in part on private sector comments about reorganization of the DNR. We're still listening, and we want to hear from you if you have questions, ideas or complaints. We have identified and resolved many difficult issues through the mechanisms summarized below.



How To Contact Us

- **Do you have concerns about a particular contaminated site?** If you don't know the RR Program project manager assigned to the site, please call our county contact for the county in which the site is located. You can obtain a list of county contacts, and any other contact information listed in this article, through the RR web site at www.dnr.state.wi.us/org/aw/rr. Click on the "Staff" button, which is located under the heading "RR Basics" on the upper left-hand side of the web page.
- **Not satisfied?** Please contact the regional supervisor. They can also be found using the "Staff" button on our main web page.
- **Want general program information?** Again, by utilizing the "Staff" button on our home web page, you can find the right person for the specific topic in which you are interested. You can also find loads of information in our publications, which can be obtained by clicking on the "Publications" button located on the right-side column of the RR web site.
- **Need to discuss an RR rule requirement?** Please contact the person listed under the "Current Rules" section of our "Cleanup Regulations/Rules" web page, and you can find that link in the upper left-hand corner of the RR web site.
- **Need to talk to someone in charge?** If you want to skip the Internet and talk to a real person, you may call Mark F. Giesfeldt, director of the Bureau for Remediation and Redevelopment, at 608-267-7562, to discuss general program issues, program direction or any other concerns about the RR Program.

Attend Public Meetings

Attend one of our informational meetings. We have a number of forums for discussions with interested parties, listed below.

- **Brownfields Study Group** Meets as needed to discuss statutes, rules, financing and liability issues associated with the investigation, cleanup and redevelopment of brownfields. Meetings are free and open to the public. Contact Andrew Savagian at 608-261-6422, or andrew.savagian@dnr.state.wi.us.
- **Governor's Dry Cleaners Council** Members are selected by the governor, but the meetings are free and open to the public. Meets as needed to discuss the statute, rules, and other issues associated with reimbursement of eligible costs for cleaning up contaminated dry cleaner sites. Contact Robin Schmidt at 608-267-7569, or robin.schmidt@dnr.state.wi.us.
- **NR 700 Focus Group** Meets quarterly to discuss changes in the RR Program. Meetings are free and open to the public. Contact Laurie Egge at 608-267-7560, or laurie.egge@dnr.state.wi.us.
- **Consultants' Focus Group** Meets quarterly to discuss technical and regulatory issues associated with cleaning up contaminated sites. Contact Laurie Egge at 608-267-7560, or laurie.egge@dnr.state.wi.us.
- **Public Hearings** Any proposed rule change for the RR Program requires a public hearing and an opportunity to provide verbal and written comments. Proposed (and newly promulgated) rules, plus public hearing dates, can be found on our "Cleanup Regulations/Rules" web page, and you can find that link in the upper left-hand corner of the RR web site.

Browse, Subscribe, Stay On Top Of Things!

If you don't need to talk to us, but want to stay up-to-date on current events in the RR Program:

- **browse**– if you can't find it on our web site at www.dnr.state.wi.us/org/aw/rr, please email the contact person listed at the bottom of the web page that is closest in content to your area of interest; be sure to check out our "What's New?" web page located on the right-hand of the RR web site;
- **subscribe**– if you know someone else who may like to receive this quarterly newsletter, please have that person call Andrew Savagian at 608-261-6422, or andrew.savagian@dnr.state.wi.us, and ask to be added to the mailing list for **Re News**

Anyone can also self-subscribe to our twice-a-month listserv updates – **RR News from DNR**– by sending an e-mail to majordomo@badger.state.wi.us. Omit an entry in the subject line, type "subscribe rr" (without quote marks) alone in the body of the message, and please don't use a signature block.



SUCCESS STORIES

MARATHON RUBBER BOUNCES BACK – WAUSAU NEIGHBORHOOD REVITALIZED

Construction of a new single- and multi-family housing development is ongoing at the former Marathon Rubber Products property on Sherman Street in the city of Wausau.

The 3.2-acre property was formerly owned by Marathon Industries, Inc., manufacturer of rubber footwear and rain-wear since the 1920s. After closure of the facility in 1999, the buildings stood empty for several years, and repeated break-ins were reported. Public health concerns at the site included broken glass, asbestos and soil contamination.

Contamination Investigated

Environmental assessment and investigation of the contamination at the former Marathon Rubber property first began in 1999. After removal of three underground storage tanks, soil borings confirmed that soils were contaminated with benzene, diesel-range organics, lead and arsenic above residual contaminant levels (RCLs) in ch. NR 720, Wis. Adm. Code.

A number of other volatile organic compounds were also detected beneath building foundations, though these were below NR 720 RCLs. In addition, monitoring wells confirmed low levels of chlorinated compounds in groundwater below ch. NR 140, Wis. Adm. Code, Preventive Action Limits (PALs).

Because the property posed potential safety hazards, it was eventually acquired through the condemnation process by the Community Development Authority (CDA) of Wausau and designated for blight elimination. In February of 2001, the DNR awarded the city a Brownfield Site Assessment Grant in the amount of \$100,000 to conduct additional investigation and demolition activities.

City officials pledged a 100 percent grant match, and have obtained \$90,000 of Community Development Block Grant funds through the U.S. Department of Housing and Urban



The Marathon Rubber site prior to cleanup. The company manufactured rubber footwear and rain gear for nearly 70 years (City of Wausau photo).

MARATHON RUBBER (CON'T.)

Development (HUD). At the city's request, the DNR also issued a general liability clarification letter to assist the city and the CDA in understanding any potential liabilities associated with the site.

A Fresh Start

Additional investigation and cleanup activities were completed by mid-2002, including building demolition and asbestos abatement, excavation of contaminated soil, and removal of abandoned containers. Although the Marathon Rubber buildings were demolished, the smokestack from the former facility was retained as a testament to the company's long-standing contribution to the local business community.

A portion of the property was redeveloped as a neighborhood park, and construction of housing for low- to middle-income families is currently underway on the remainder of the property. Participating in the construction are members of Wausau Fresh Start, an educational AmeriCorp program employing mostly Southeast Asian youth in construction activities. Upon completion, assessed values of the proposed housing units are expected to total approximately \$750,000.

For more information about the Marathon Rubber site, please contact Mae Willkom at 715-839-3748, or mae.willkom@dnr.state.wi.us, or visit the DNR's RR web site at www.dnr.state.wi.us/org/aw/rr.

REGISTER FOR JULY MILWAUKEE BROWNFIELDS WORKSHOP!



The International Economic Development Council (IEDC) is hosting a brownfields redevelopment workshop in Milwaukee on July 17-18. Topics being discussed include brownfields and economic development; brownfields liability; brownfields assessment, contamination and cleanup; and emerging brownfields developers.

Registration includes the two-day workshop, a brownfields redevelopment resource manual and a site tour of local brownfields redevelopment efforts. Registration information and the two-day agenda can be found on IEDC's web site at http://iedconline.org/prodev_brownfields.html.

For more information on the IEDC, please see www.iedconline.org, or call 202-223-7800.



The new neighborhood park after cleanup. The city of Wausau is also working with Fresh Start to build low- to middle-income housing units on the property (photo by Loren Brumberg, DNR).



GROWING SMART WITH BROWNFIELDS - WISCONSIN'S COMPREHENSIVE PLANNING LEGISLATION

Wisconsin Act 9, the state's new comprehensive planning legislation, has been labeled by many as Wisconsin's first "Smart Growth" law. For communities working with tighter budgets and a shrinking land base, this new legislation can provide a helpful framework for communities as they develop comprehensive plans that include dealing with contaminated properties like brownfields.

Three Key Elements

What sets this new law apart from existing planning laws is that it provides a detailed definition of nine elements that should be addressed in a comprehensive plan. Two of the most important elements are Intergovernmental Cooperation and Implementation. It is intended that communities work together in addressing these elements and to set a timeline to implement all the programs and policies in the plan.

Another key element, and one of special interest to environmental consultants in particular, is the Economic Element. This element will play a critical role for communities in the investigation and cleanup of contamination properties, as stated in its definition: "this element shall also evaluate and promote the use of environmentally contaminated sites for commercial and industrial uses."

These three elements – Economic Development, Intergovernmental Cooperation, and Implementation – reflect the important link between environment and economics. How? Currently very few local governments have any incentive to consider the regional impacts of their retail or commercial decision-making. Many communities, especially suburban towns, are forced to compete with their neighbors to increase the tax base to pay for ever-increasing residential service demands. As communities sprawl outward, the environment can become degraded, resources consumed, and rural open space becomes scarce.

Growing In The Right Direction

Through taking advantage of the Smart Growth legislation and the three elements mentioned above, communities can work together to grow inward and up, rather than growing outward and away. Communities could:

- work together to rebuild brownfields and meet many of the goals of the new comprehensive law;
- cooperatively direct new businesses to locations where they are best suited to meet the needs of the regional economy, and
- sweeten the deal by offering incentives for redeveloping brownfields and/or using and upgrading existing infrastructure.

Brownfields redevelopment can meet many of the goals of sound land use planning by keeping jobs and people downtown, promoting in-fill development and utilizing existing services. It also promotes the use of tax delinquent properties – allowing communities to get these eyesores back on the tax rolls and avoid fringe development on prime farmland. Finally, brownfields helps communities maintain a sense of place and build regional character.

The next time you read about your community beginning a comprehensive planning process, get involved and encourage brownfields redevelopment as a way to save both urban and rural environments. For more information about DNR brownfields programs, please contact Darsi Foss at 608-267-6713, or darsi.foss@dnr.state.wi.us. For more DNR land use information, please contact Sally Kefer at 608-266-0833, or sally.kefer@dnr.state.wi.us; or visit the DNR's land use web site at www.dnr.state.wi.us/org/es/science/landuse.

2003 CALL FOR ENTRIES - NATIONAL AWARD FOR SMART GROWTH ACHIEVEMENT

The EPA is pleased to announce that applications are now being accepted for the 2003 National Award for Smart Growth Achievement. This competition is open to local and state governments and other public sector entities that have successfully created smart growth.

Smart growth is development that serves the economy, the community and the environment. Smart growth development approaches have clear environmental benefits, including improved air and water quality, greater preservation of critical habitat and open space, and more clean up and re-use of brownfield sites.

Applications will be accepted in five categories:

- 1) built projects;
- 2) policies and regulations;
- 3) community outreach and education;
- 4) public schools; and
- 5) overall excellence in smart growth.



Interested parties from urban, suburban and rural areas are encouraged to submit applications for smart growth activities undertaken within the last five years. Successful applicants will incorporate smart growth principles to create places that respect community culture and the environment, foster economic development and promote a better quality of life for this and future generations.

Applications are due on June 30, 2003. Up to five winners will be recognized at a ceremony in Washington, D.C., in November 2003. For more details about the National Award for Smart Growth Achievement, including an application packet, please visit: www.epa.gov/smart-growth/awards_2003.htm.



ASSISTANCE AVAILABLE FOR ON-SITE POWER GENERATION AT REDEVELOPMENT PROJECTS

The Focus on Energy program, a state-sponsored energy efficiency and renewable energy program for Wisconsin homes and businesses, is now offering assistance and financial incentives to brownfield redevelopers.

This assistance program will help developers assess and install high efficiency, on-site power generation technologies. Early-stage redevelopment projects offer opportunities to design and implement on-site power sources that otherwise may not be cost effective after construction is completed. Free technical assistance is available to assess the potential of your site.

There are also cost-share funds available for more in-depth assessments. However, financial incentives for installing on-site power technologies are limited to those projects that use renewable fuels and/or implement combined heat and power systems (CHP). These CHP systems produce electricity and useable hot water or steam, which can be used by add-on technologies to heat, cool, humidify or dehumidify buildings.

For more information, call Focus on Energy at 1-800-762-7077. For general information about Focus on Energy, please see www.focusonenergy.com. More information about CHP is available from EPA at www.epa.gov/CHP/ and the CHP Association at www.nemw.org/uschpa/resources.htm.

HAZARDOUS WASTE REMEDIATION GUIDANCE, WEB PAGE DEVELOPED



The requirements for remediation and redevelopment of sites contaminated with hazardous waste can be complicated and confusing. The federal hazardous waste program began in 1976 with the adoption of Subtitle C of the Resource Conservation & Recovery Act (RCRA). The U.S. EPA promulgated specific regulations to implement these provisions in 1980. State hazardous waste rules were then adopted, based on the federal regulations.

The fact that these hazardous waste rules would not only govern the treatment, storage and disposal of hazardous waste, but would also have a potential impact on environmental cleanups was probably not fully understood by federal officials when the regulations were originally written. As a result, EPA staff have issued several major rule changes, along with numerous policy memos and guidance documents, clarifying the applicability of the hazardous waste rules to cleanup situations. These documents have provided a more flexible approach to help ensure that contaminated sites are investigated and remediated in a timely manner.

Staff with the DNR's Waste and RR programs have taken the information from these and other sources and developed a comprehensive guidance entitled **Guidance for Hazardous Waste Remediation** (publication #RR-705).

This document provides direction to DNR staff, responsible parties and other interested individuals on requirements and options available when dealing with cleanup and redevelopment issues at sites that are contaminated or may be contaminated with hazardous waste. The guidance also contains links to numerous EPA documents that provide additional details.

You can obtain this guidance from the RR Program's web site at www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR705.pdf. Staff provided several training sessions to interested parties in the spring, and some of those training materials are available on the RR Program's new hazardous waste remediation web page at www.dnr.state.wi.us/org/aw/rr/cleanup/hazardous_waste.htm. For questions about the guidance, please contact Mark Gordon at 608-266-7278, or mark.gordon@dnr.state.wi.us.



NEW, REVISED PUBLICATIONS AVAILABLE

New Chlorinated Hydrocarbon Guidance Published

The RR program's guidance on chlorinated hydrocarbons is now available.

Understanding Chlorinated Hydrocarbon Behavior in Groundwater: Investigation, Assessment and Limitations of Monitored Natural Attenuation (publication #

RR-699) provides guidance on characterizing, assessing and monitoring sites contaminated with chlorinated hydrocarbons.

The document also provides tools for assessing monitored natural attenuation (MNA) of chlorinated hydrocarbons.

The guidance emphasizes chlorinated hydrocarbon behavior in the subsurface, the use of rapid site investigation techniques to help define degree and extent of contamination, establishing a groundwater monitoring network, assessment of groundwater monitoring data, long-term groundwater monitoring, and regulatory requirements applied to MNA. The document is available at www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR699.pdf.

Dry Cleaner Publications Revised

The following RR dry cleaner publications have been revised:

- **Chapter NR 169 - Rule Revisions Proposed** (publication #RR-698) – summary of dry cleaner rule revisions, as proposed before public hearings; available at www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR698.pdf;
- **Dry Cleaner Environmental Response Fund: Complying with the Cleanup Requirements** (publication #RR-633) – focuses on the cleanup requirements in ch. NR 700, Wis. Adm. Code, which must be complied with when contamination is discovered at the site; www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR633.pdf;
- **Dry Cleaner Environmental Response Fund: Is the Pam for Me?** (publication #RR-632) – focuses on applicant eligibility requirements for the Drycleaner Environmental Repair Fund (DERF) program; the fact sheet also contains examples of sites that are eligible or not eligible for this program; www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR632.pdf; and
- **Dry Cleaner Environmental Response Fund: Getting Your Money Back** (publication #RR-641) – contains information regarding the processes required as part of the reimbursement process, as well as eligible and ineligible activities associated with the DERF program; www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR641.pdf.

SUDZ Publication Updated

Sustainable Urban Development Zone (SUDZ) funding was created by the Legislature to reimburse certain municipalities for the cost of environmental investigation and cleanup at brownfields. The **Wisconsin's Sustainable Urban Development (SUDZ) Projects** fact sheet (publication #RR-667) provides an overview of the work being done by the seven municipalities that have received SUDZ funding, and is available at www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR667.pdf.

RENEWMS

RELEASE • RESTORE • REDEVELOP



For More Information: *Re News* is published quarterly by the Wisconsin Department of Natural Resources Bureau for Remediation and Redevelopment.

This newsletter is available in alternate format upon request. Please call 608-267-3543.

Our Web Site Is : <http://www.dnr.state.wi.us/org/aw/rr>

Refer comments and questions to :
Bureau For Remediation & Redevelopment
Wisconsin DNR
P.O. Box 7921
Madison, WI 53707 608-261-6422

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and functions under an Affirmative Action Plan.

This newsletter may contain summary information about certain state statutes and/or rules and does not include all of the details found in the statutes/rules. Readers should consult the actual language of the statutes/rules to answer specific questions.

Department of Natural Resources
Bureau for Remediation and Redevelopment, RR/3
P.O. Box 7921
Madison, WI 53707

Presorted Standard
U.S. POSTAGE
PAID
Madison, WI
Permit No. 906